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Exhibit R-2, RDT&E Budget Item Justification			Date: February 2004			
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NO	OMENCLATU	RE		
DEFENSE WIDE RDT&E BA 3		J-UCAS Adv	anced Technological	ogy PE	0603400D8Z	
		Development	and Risk Redu	iction		
COST (\$ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
PE 0603400D8Z	-	284.617	77.785	-	-	-

## A. Mission Description and Budget Item Justification:

The Joint Unmanned Combat Air Systems (J-UCAS) program is a joint DARPA, Air Force, and Navy effort to develop and demonstrate unmanned combat capabilities for high-threat Suppression of Enemy of Air Defense (SEAD), Surveillance/Reconnaissance, and related strike missions within the emerging global command and control architecture. The J-UCAS program combines the efforts that were previously conducted under the DARPA/Air Force Unmanned Combat Air Vehicle (UCAV) program and the DARPA/Navy Naval UCAV (UCAV-N) program. Although these efforts were targeted towards service-specific needs, the Department recognized the potential for significant synergy by combining the programs. The accomplishments and ongoing efforts of the X-45A technology demonstrator, as well as the development of the X-47A demonstrator, will reduce the risk of the system being developed for the joint early operational assessment. The J-UCAS concept incorporates the next generation Boeing X-45C family and Northrop Grumman X-47B family of air vehicles, together with a common architecture and subsystems (e.g. sensors, communications, and command & control software). These common system elements will maximize system flexibility and operational versatility, while reducing overall costs and maintaining schedule toward a joint early operational assessment planned for the FY07-09 timeframe. The J-UCAS Office integrates DARPA, Air Force, and Navy personnel, operating in close coordination with Service users and other components. The program is focused on achieving a joint early operational assessment that supports both Services and enables an operational system development decision by the end of the decade. PE 0603400D8Z is for Advanced Technology Development and Risk Reduction, which funds the completion of demonstrations of the X-45A technology demonstrator and continued development of the Boeing X-45C and Northrop Grumman X-47B demonstrator systems, originally initiated under the UCAV and UCAV-N programs.

## **B.** Program Change Summary:

	FY 2003	FY 2004	FY 2005
Previous President's Budget	-	-	-
Current FY 2005 President's Budget	-	-	284.617
Total Adjustments			
Congressional program reductions			
Congressional rescissions			
Congressional increases			
Reprogrammings			
SBIR/STTR Transfer			

# C. Other Program Funding Summary:

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	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY2009
PE 0604400D8Z, OSD	-	-	422.873	667.307	380.105	1,043.498	986.156
PE 0603114N, Navy	-	117.865	-				
PE 0604731F, Air Force	-	174.449	-				
PE 0207256F, Air Force	-	2.305	-				
PE 0603285E, DARPA	_	38.385	_				

# D. Acquisition Strategy:

The J-UCAS Advanced Technology Development and Risk Reduction acquisition strategy is to prove the basic technological feasibility of the J-UCAS concept with the X-45A technology demonstrator and to prove the military utility through the next generation demonstrators – the X-45C and the X-47B demonstrators. This effort is tightly coupled with PE 0604400D8Z (J-UCAS Advanced Component and Prototype Development), which complements the work under this program element to deliver systems for the joint early operational assessment, using a common architecture and subsystems.

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Exhibit R-2a, RDT&E Budget Item Justification			Date: February 2004			
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NO	OMENCLATU:	RE		
DEFENSE WIDE RDT&E BA 3		J-UCAS Advanced Technology PE 0603400D8Z				
		Development	and Risk Redu	ction		
COST (\$ in millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
J-UCAS	0.000	284.617	77.785	0.000	0.000	0.000

#### A. Mission Description and Budget Item Justification:

The Joint Unmanned Combat Air Systems (J-UCAS) program is a joint DARPA, Air Force, and Navy effort to develop and demonstrate unmanned combat capabilities for high-threat Suppression of Enemy of Air Defense (SEAD), Surveillance/Reconnaissance, and related strike missions within the emerging global command and control architecture. The J-UCAS program combines the efforts that were previously conducted under the DARPA/Air Force Unmanned Combat Air Vehicle (UCAV) program and the DARPA/Navy Naval UCAV (UCAV-N) program. Although these efforts were targeted towards service-specific needs, the Department recognized the potential for significant synergy by combining the programs. The accomplishments and ongoing efforts of the X-45A technology demonstrator, as well as the development of the X-47A demonstrator, will reduce the risk of the system being developed for the joint early operational assessment. The J-UCAS concept incorporates the next generation Boeing X-45C family and Northrop Grumman X-47B family of air vehicles, together with a common architecture and subsystems (e.g. sensors, communications, and command & control software). These common system elements will maximize system flexibility and operational versatility, while reducing overall costs and maintaining schedule toward a joint early operational assessment planned for the FY07-09 timeframe. The J-UCAS Office integrates DARPA, Air Force, and Navy personnel, operating in close coordination with Service users and other components. The program is focused on achieving a joint early operational assessment that supports both Services and enables an operational system development decision by the end of the decade. PE 0603400D8Z is for Advanced Technology Development and Risk Reduction, which funds the completion of demonstrations of the X-45A technology demonstrator and continued development of the Boeing X-45C and Northrop Grumman X-47B demonstrator systems, originally initiated under the UCAV and UCAV-N programs.

B. Accomplishments/Planned Program

	FY 2003	FY 2004	FY 2005
Accomplishment/Effort/Subtotal Cost	0.000	0.000	284.617

## Planned Program:

- Continue development of J-UCAS systems, specifically the Boeing X-45C and Northrop Grumman X-47B air vehicles as well as the common operating system and sensors.
- Prepare for joint early Operational Assessment (OA).

# C. Other Program Funding Summary:

	<u>FY 2003</u>	FY 2004	FY 2005
PE 0604400D8Z, OSD	-	-	422.873
PE 0603114N, Navy	-	117.865	-

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	01102110011121			
PE 0604731F, Air Force	-	174.449	-	
PE 0207256F, Air Force	-	2.305	-	
PE 0603285E, DARPA	=	38.385	_	

# D. Acquisition Strategy:

The J-UCAS Advanced Technology Development and Risk Reduction acquisition strategy is to prove the basic technological feasibility of the J-UCAS concept with the X-45A technology demonstrator and to prove the military utility through the next generation demonstrators – the X-45C and the X-47B demonstrators. This effort is tightly coupled with PE 0604400D8Z (J-UCAS Advanced Component and Prototype Development), which complements the work under this program element to deliver systems for the joint early operational assessment, using a common architecture and subsystems.

# E. Major Performers:

The Boeing Company, St. Louis, MO
The Boeing Company, Seattle, WA
Northrop Grumman Corporation, El Segundo, CA
Northrop Grumman Corporation, Rancho Bernardo, CA
Northrop Grumman Corporation, Palmdale, CA